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EXAMINER
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/070,411  
Filing Date: October 09, 2002  
Appellant(s): KALLIO ET AL.

**MAILED**

**JUN 08 2007**

**Technology Center 2600**

Keith R. Obert  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 15, 2006 appealing from the Office action mailed November 17, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,671,291	Soliman	12-2003
6,141,336	Bauchot	10-2000
4,774,704	Gass	9-1988
5,448,570	Toda	9-1995
5,613,211	Matsuno	3-1997
5,761,195	Lu	6-1998

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 7-8, 10, 14-17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot.

As to claims 1, 8 and 10, Soliman discloses a frequency setting unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the frequency setting unit comprising: a radio receiver for receiving signals at a first frequency from a first base station located in the first radio telecommunication; analysis apparatus for analyzing the received signals to determine the first frequency; and frequency setting apparatus responsive to the analysis apparatus and coupled to the second base station transmitting at a second frequency, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency (see col. 1, line 55 –col. 2, line 65; col. 6, line 62 – col. 7, line 49). Soliman does not specifically disclose that the second BTS is located in a second radio telecommunication network. In an analogous art, Bauchot discloses wherein the second base station is connected to another telecommunications network (see col. 2, line 61 – col. 3, line 10), thereby permitting to communicate between the stations of different networks. Therefore, it would have been obvious

to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman apparatus for being able to adjust one network to cooperate with the other network.

As to claims 2-5 and 7, Soliman discloses a frequency setting unit wherein said reference signal is provided to the first base station by a reference clock where a pulse train is sent to said first controller, to derive a set of pulse trains that are sent to said first base station controlling the first base station, wherein the second base station comprises a clock and the frequency setting apparatus is capable of transmitting a clock setting signal to the second base station for setting the clock, wherein the clock setting signal comprises a stream of clock pulses (see col. 4, line 58 – col. 6, line 65).

As to claim 16, Soliman discloses a frequency setting unit wherein said telecommunications network is operable according any communications standard (see col. 9, lines 61- col. 10, line 4).

Regarding claim 17, 22-25, 27 and 30 are rejected for the same reason shown above to claim 1.

As to claims 14-15, Soliman discloses everything claimed as explained above except for wherein the second base station is connected to another telecommunications network by means of an asynchronous connection. Bauchot discloses wherein the second base station is connected to another telecommunications network by means of an asynchronous connection (see col. 2, line 61 – col. 3, line 10). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman apparatus for the simple reason of compatibility.

As to claim 28, Bauchot discloses where the synchronization unit is a mobile handset (see col. 3, line 66 – col. 4, line 4).

5. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Gass.

As to claim 9, Soliman discloses everything claimed as explained above except for wherein said desired relationship is such that the second frequency is a multiple of the first frequency by shifting the frequency of said internal clock within the second controller. Gass discloses wherein said desired relationship is such that the second frequency is a multiple of the first frequency by shifting the frequency of said internal clock within the second controller controlling said base station (see col. 4, lines 7-16). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for enhanced quality in the communication.

As to claim 6, Soliman does not specifically disclose wherein said clock setting signal is derived from an internal clock within the base station. However, OFFICIAL NOTICE IS TAKEN THAT the use of internal clocks is a common and well-known technique. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to use this technique for a reliable operation.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Toda.

As to claim 13, Soliman discloses everything claimed as explained above except for a frequency setting unit comprised in said second controller. Toda discloses a frequency setting unit comprised in said second controller (see abstract). Therefore, it would have been obvious to

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one of the ordinary skill in the art at the time of the invention to combine both teaching for enhanced reliability and versatility.

7. Claim 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Matsuno US005613211A.

As to claims 18 and 26, Soliman discloses everything claimed as explained above except for a frequency setting unit is a base station controller. In an analogous art, Matsuno discloses setting the frequency from a base station controller (see col. 9, lines 52-58), thereby synchronizing the base stations connected to the controller. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for controlling frequency synchronization of multiple base stations.

8. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Lu US005761195A.

As to claims 19-20, Soliman discloses a frequency setting unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the frequency setting unit comprising: a radio receiver for receiving signals at a first frequency from a first base station located in the first radio telecommunication; analysis apparatus for analyzing the received signals to determine the first frequency; and frequency setting apparatus responsive to the analysis apparatus and coupled to the second base station transmitting at a second frequency, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency (see col. 1, line 55 –col. 2, line 65; col. 6, line 62 – col. 7, line 49). Soliman does not



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specifically disclose an expansion card or that the second BTS is located in a second radio telecommunication network.

In an analogous art, Bauchot discloses wherein the second base station is connected to another telecommunications network (see col. 2, line 61 – col. 3, line 10), thereby permitting to communicate between the stations of different networks. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman apparatus for being able to adjust one network to cooperate with the other network.

In another analogous art, Lu discloses that base station controller is made of expansion or circuit cards (see col. 7, lines 61-64). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman and Bauchot modified apparatus for easy expansion, service and upgradeability.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and Lu, and further in view of Matsuno US005613211A.

As to claim 21, Soliman discloses everything claimed as explained above except for a frequency setting unit is a base station controller. In an analogous art, Matsuno discloses setting the frequency from a base station controller (see col. 9, lines 52-58), thereby synchronizing the base stations connected to the controller. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for controlling frequency synchronization of multiple base stations.

#### **(10) Response to Argument**

Regarding appellant argument that there is no motivation to combine the teachings of Soliman with the teaching of Bauchot, Soliman is directed to synchronizing time and frequency

in a communication network (see col. 1, lines 9-13) and Bauchot is directed to synchronize timing between different communication networks (see col. 1, lines 9-14); since both references are directed to same problem of synchronization and analogous it would be obvious to one of the ordinary skill in the art at the time of invention to combine both teachings.

Regarding applicant arguments about the hindsight; in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to the appellant argument that Bauchot is not concerned with synchronizing timing between networks, but instead provides a delay oriented scheduling method using the arrival time of data cells to determine when each data cell must be transmitted; the idea of providing the delay is to match the time slot (synchronizing) of the second network, thereby it is synchronizing the time slot between the two different networks (see col. 2, line 61- col. 3, line 24; col. 2, lines 27-52).

In response to the appellant argument that Bauchot is teaching away from adjusting a second frequency, this teaching is taught by Soliman in col. 1, line 55 –col. 2, line 65; col. 6, line 62 – col. 7, line 49. What does Bauchot teaches is a second base station in a second radio telecommunication network establishing a time slot relationship with the first network see col. 2, line 27 – col. 3, line 10. One cannot show nonobviousness by attacking references individually

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where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore, the combination of both references does teach the mentioned limitation.

In response to the appellant argument that Office has engaged in impermissible hindsight reasoning by using the applicant's own disclosure has a blueprint to piece together elements from the prior art; Soliman does describe the importance of sharing synchronizing, time and frequency information, also give the example improving handoff reliability, (see col. 1, lines 15-21) one of the ordinary skill in the art would look in the Bauchot reference in order to accomplish a handoff between networks.

Regarding claims 2-10, 13-19, 21-28 and 30, they fall together for the same reasons of claim 1.

In response to the appellant argument to the combination of claim 20, that include the additional reference of Lu; Lu discloses the common and well-known method of using expansion cards, removable cards, cartridge or circuit cards in a base station, base station controller or mobile switching center to easily configure the device (see col. 7, line 61-67), since Lu discloses that this can be done in a base station controller, it would have been obvious to one of the ordinary skill in the art at the time of invention to add this feature in the modified base station controller of Soliman and Bauchot for highly configurable and expandable device as disclosed by Lu.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

  
Marcos Torres

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